

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 29 JUL 2005

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Applicant's or agent's file reference TP103051/TRO	FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/FI2004/050097	International filing date (day/month/year) 17.06.2004	Priority date (day/month/year) 18.06.2003	
International Patent Classification (IPC) or national classification and IPC D21G1/00			
Applicant METSO PAPER, INC. et al.			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
 - a. ☐ sent to the applicant and to the International Bureau) a total of sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 10.01.2005	Date of completion of this report 28.07.2005
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Helpiö, T. Telephone No. +49 89 2399-



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/FI2004/050097

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

Description, Pages

1-7 as originally filed

Claims, Numbers

1-12 as originally filed

Drawings, Sheets

1/3-3/3 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-12
	No: Claims	
Inventive step (IS)	Yes: Claims	1-12
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-12
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:
D1: US-B-6 189 4421 (HONKALAMPI PETTER ET AL) 20 February 2001 (2001-02-20)
D2: DE 44 37 533 A (VOITH GMBH J M) 25 April 1996 (1996-04-25)

2. The document D1 is regarded as being the closest prior-art to the subject-matter of claim 1, and discloses (cf. especially column 10, lines 38-65; figures) a method for calendering a paper or paperboard web according to the preamble of claim 1.

The subject-matter of claim 1 therefore differs from this known method in that:

"at least one edge area of the web is calendered in the reeling step".

The problem to be solved by the present invention may therefore be regarded as providing an improved method for calendering a paper or paperboard web, which allows separate calendering of the web edge areas without a need for extra space within the calender.

In the method according to D1, the calendering of the edge areas takes place in a preceding or subsequent nip with respect to the actual calendering nip. D1 does not teach combining calendering of the edge areas with reeling. Document D2 shows a method for combined calendering and reeling. In this method, two rollers (3.1 and 3.4) of the reeling arrangement form together a full width calendering nip. D2 does not discuss the separate calendering of the edge areas. There is no hint in D1 or D2, which would lead the skilled person, in order to solve the above problem, to combine their teachings and thereby arrive to the subject-matter of claim 1. Therefore, claim 1 appears to satisfy the requirements of Article 33 PCT with regard to novelty and inventive step.

3. The subject-matter of claim 6 relates to a corresponding device for calendering a paper or paperboard web. As such, this claim also satisfies the requirements of Article 33 PCT with regard to novelty and inventive step.

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(SEPARATE SHEET)**

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4. Dependent claims 2-5 and 7-12 add further features to the independent claims and as such they also meet the requirements of the PCT with respect to novelty and inventive step.
5. The industrial applicability (Art. 33(4) PCT) of the present invention is evident.
